Claims

1. A fuel injection device (22) for an internal combustion engine, having a housing (30), having at least one valve element (36) which cooperates with a valve seat (58) on an injection end of the housing (30) and with which valve element at least two fuel outlet conduits (68) of the housing are associated, characterized in that the fuel outlet conduits (68) associated with a valve element (36) communicate fluidically with one another through an annular groove (66).

2. The fuel injection device (22) of claim 1, characterized in that the annular groove (66; 66a) is embodied in the housing (30).

3. The fuel injection device (22) of claim 1, characterized in that the annular groove (66; 66b) is embodied in the valve element (36).

4. The fuel injection device (22) of claim 1, characterized in that one annular groove (66a) is embodied in the housing (30), and a further annular groove (66b) is embodied in the valve element (36).

5. The fuel injection device (22) of one of the foregoing claims, characterized in that the annular groove (66) has an approximately semicircular cross section.

6. The fuel injection device (22) of one of claims 1 through 3, characterized in that the annular groove has an asymmetrical cross section, with a lesser total curvature upstream of the fuel outlet conduits than downstream.

7. The fuel injection device (22) of one of the foregoing claims, characterized in that it has at least two coaxial valve elements (34, 36), and the annular groove (66) is present in the region of the fuel outlet conduits (68) of the radially outer valve element (36), and the fuel outlet

conduits (64) of the radially inner valve element (34) begin at a central blind hole (62) which is formed on the injection end of the housing (30).